

CLAIM AMENDMENTS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A chip removing device in a band saw that removes, using a pair of brushes, chips adhered to a band saw blade that rotates while being wound around a driving wheel and a follower wheel rotatably supported by a saw blade housing, the chip removing device comprising:

a pair of brush support bodies that pivotally support a pair of brush shafts having respectively the pair of brushes that can come into contact with both side surfaces of a blade tip of the band saw blade such that the pair of brush shafts can be rotationally driven;

a driving mechanism having a drive motor, the driving mechanism rotationally driving the pair of brush shafts pivotally supported by the pair of brush support bodies in a manner such that a rotationally moving direction on a side where each of the pair of brushes provided on the pair of the brush shafts comes into contact with the band saw blade is the same direction of the running direction of the band saw blade; and

a removing biasing unit that can bias the pair of brush support bodies in a direction approaching the band saw blade and in a direction separating away from the band saw blade, wherein blade; and

a wear detector that detects a reduction in diameter of the brush caused by wear, wherein

each of the pair of brush support bodies and each of the pair of brush shafts are provided such that they can rock in the direction approaching the band saw blade and in the direction separating away from the band saw blade,

each of the pair of brushes is biased toward the band saw blade so that the band saw blade is sandwiched with the pair of brushes,

the pair of brush shafts are inclined in a forward and downward direction with respect to ~~[[a]]~~
the running direction of the band saw blade, and

each of the pair of brushes is rotated from a blade root side toward a blade tip side of the band saw blade, thereby removing the chips from the band saw blade, and wherein

the wear detector comprises:

a pair of pushing levers extending from the pair of brush support bodies toward the band saw blade;

a sensor to detect the wear of the band saw blade;

a shaft to be detected which can be engaged with each of the pushing levers and which can be reciprocated so as to approach the sensor and to be moved away from the sensor; and

a detecting biasing unit biasing always the shaft to be detected so that the shaft to be detected is moved away from the sensor and is brought into abutment against the pushing levers,

wherein when one or both of the pair of brushes is worn to their using limit, the one or both of the pair of brushes being moved toward the band saw blade by the removing biasing unit and one or both of the pair of pushing levers being engaged with the shaft to be detected,

thereby the shaft to be detected is pushed by the pushing levers so as to approach the sensor then the wear for the using limit of the one or both of the pair of brushes can be detected.

2-4. Canceled

5. (Currently Amended) The chip removing device in the band saw according to ~~claim 3~~
claim 1, wherein

the driving mechanism comprises:

a pair of drive bevel gears opposed to a shaft end of a main rotation drive shaft that is rotated and driven by the drive motor;

a pair of second rotation drive shafts that are rotated and driven in directions opposite from each other through a pair of follower bevel gears meshing with the pair of drive bevel gears, the pair of second rotation drive shafts intersecting with the main rotation drive shaft at right angles; and

a pair of universal joints that connects the pair of second rotation drive shafts and the pair of brush shafts that are pivotally supported by the pair of brush support bodies such that the pair of second rotation drive shafts and the pair of brush shafts can rock in a direction approaching the band saw blade and in a direction separating away from the band saw blade.

6. (Previously Presented) The chip removing device in the band saw according to claim 5, wherein

the removing biasing unit comprises:

spring hooks that are respectively provided on the brush support bodies and a housing incorporating the main rotation drive shafts and the second rotation drive shaft on the side of the band saw blade, and at positions away from a turning center of a respective universal joint; and

tension springs that are resiliently provided between the spring hook on the side of the housing and the spring hook on the side of the brush support body.